

ABSTRACT

A non-aqueous electrolyte secondary cell that has excellent high-temperature cycle characteristics and that is highly safe enough to prevent overcharge is provided. The non-aqueous electrolyte secondary cell 5 has a positive electrode for reversibly intercalating-deintercalating lithium ions, a negative electrode for reversibly intercalating-deintercalating lithium ions, and a non-aqueous electrolyte having a non-aqueous solvent and an electrolyte salt. The non-aqueous solvent includes a cycloalkylbenzene derivative and an alkylbenzene derivative having a 10 quaternary carbon directly bonded to a benzene ring and not having a cycloalkyl group directly bonded to the benzene ring.